

Remarks

Claims 1-35 are pending in the application, claims 1, 2, 5-8, 10-11, 15, 18-24, 28-33 and 35 of which stand rejected under 35 U.S.C. Section 103(a) in view of Hill. Claims 3, 4, 9, 12-14, 16-17, 25-27 and 34 are objected to but indicated to be allowable if rewritten in independent form.

The Abstract is also objected to as containing the word "comprises".

Applicant has rewritten claims 3, 16 and 34 in independent form thereby placing these claims and their dependent claims 4, 9, 12-14, 17, 25-27 in condition for allowance. An authorization to charge applicant's deposit account for these additional dependent claims is submitted herewith.

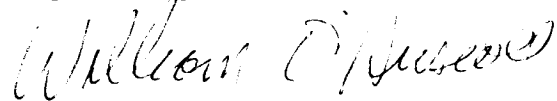
The Abstract has been amended to replace the word "ccmpries" with the word "includes", this change being believed to resolve the objection.

Applicant respectfully traverses the rejection of claims 1, 15 and 28 under 35 U.S.C. Section 103(a) in view of Hill. Claim 1 requires a core at least partially defining a storage chamber wherein the storage chamber is adjacent the plurality of chambers and wherein the second plurality of pleats are more compactly stored in the storage chamber. Similarly, claim 15 requires a core including a sawtooth rack at least partially defining a storage chamber wherein the storage chamber is adjacent a plurality of chambers and wherein a second plurality of pleats are stored in the storage chamber adjacent an inflow passage. Claim 28 requires a core having a storage chamber and inserting a second plurality of pleats in the storage chamber wherein the second plurality of pleats are more tightly folded than the first plurality of pleats. It is submitted that Hill does not and cannot meet either the storage chamber requirement or the requirement of the second plurality of pleats being more compactly stored in the storage chamber.

stored in a storage chamber and that there is no room at the side wall for such a storage chamber. Claims 1, 15 and 28 are submitted to be novel and patentable in view of Hill since Hill does not meet the storage chamber requirements and since there is no suggestion in Hill to make any modification which might result in those claims. The Examiner is requested to reconsider and withdraw the rejection of claims 1, 15 and 28, as well as the dependent claims thereon, and allow the application to proceed to allowance.

Applicant believes that the foregoing remarks and amendments address each issue raised in the Office Action. However, the Examiner is invited to contact applicant's representative at the number below if an issue has been inadvertently overlooked or incompletely addressed.

Respectfully Submitted, ,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

3. (once amended) A filter assembly, comprising:
a core at least partially defining a plurality of chambers and a storage chamber, wherein the plurality of chambers are adjacent the storage chamber;
a filter media having a first plurality of pleats and a second plurality of pleats, wherein the first plurality of pleats adjoin the second plurality of pleats, the first plurality of pleats are distributed over the plurality of chambers, and the second plurality of pleats are more compactly stored in the storage chamber; and
[The filter assembly of claim 1,]
wherein the core includes a generally rectangular frame comprising a first pair of frame members that are substantially parallel to each other and a second pair of frame members that are substantially perpendicular to the first pair of frame members, wherein the saw tooth rack is pivotally coupled to the frame.

16. (once amended) A filter assembly, comprising:
a core that includes a generally rectangular frame that defines an airflow opening therethrough, the core further includes a saw tooth rack having a plurality of peaks and valleys which at least partially define a plurality of chambers and a storage chamber, wherein the storage chamber is adjacent the plurality of chambers;
a filter media having a first plurality of pleats and a second plurality of pleats, wherein the first plurality of pleats adjoin the second plurality of pleats, the first plurality of pleats extend across the airflow opening and are distributed over the plurality of chambers, and the second plurality of pleats are stored in the storage chamber adjacent the airflow opening; and

34. (once amended) A method of inserting a filter media into a core having a plurality of chambers and a storage chamber, the method comprising:

 folding the filter media to create a first plurality of pleats and a second plurality of pleats;

 inserting the first plurality of pleats in the plurality of chambers;

 inserting the second plurality of pleats in the storage chamber, wherein the second plurality of pleats are more tightly folded than the first plurality of pleats;

 wherein the core includes a generally rectangular frame to which an end plate is pivotally attached, and further comprising pivoting the end plate into engagement with the filter media; and

 [The method of claim 29,]

 wherein the core includes a saw tooth rack that helps define the plurality of chambers, and further comprising pivoting the saw tooth rack relative to the frame.

Abstract of the Disclosure

An air filter assembly [comprises] includes a plastic frame containing an air permeable filter media. The media is corrugated to provide a series of pleats. Some of the pleats can be folded more compactly than others, so that the media can fit in various size frames. This can reduce the inventory of filter manufacturers and dealers. The filter frame can be plastic injection molded with integral living hinges to enable the frame to fold from a relatively flat shape to a more box-like structure. The frame includes one or more flip-up saw tooth racks that help define a main series of chambers plus a storage chamber. The main series of chambers supports a portion of the media that is more loosely folded for filtering air. The storage chamber is adjacent the main air stream and holds the more compactly folded, excess pleats.